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## AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Cancelled).

2. (Currently amended)        A computerized method of determining parameters for chemical synthesis comprising:

accepting a user identification of a target chemical;

displaying a listing of reagent chemicals that are used to synthesize the target chemical, in response to the user identification of the target chemical;

accepting user selection from the listing of reagent chemicals, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical; and

generating an electronic order for the target chemical and/or the reagent chemicals that are used to synthesize the target chemical in response to the user selection ~~input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical~~.

3. (Previously presented)        A method according to Claim 2 wherein the accepting a user identification of a target chemical is preceded by:

entering into a database, a plurality of target chemicals, a plurality of corresponding listings of reagent chemicals that are used to synthesize the plurality of target chemicals, and a plurality of corresponding listings of procedures that are used to synthesize the plurality of target chemicals by reacting the corresponding reagent chemicals according to the corresponding procedure.

4. (Cancelled).

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5.      (Previously presented)      A method according to Claim 2 wherein the accepting a user identification of a target chemical comprises accepting a user identification of a target chemical by chemical formula, chemical structure, chemical compound name and/or CAS number.


6. (Previously presented)     A method according to Claim 2 wherein the accepting a user identification of a target chemical comprises:

    displaying a listing of target chemicals that match a user query; and

    accepting a user selection of a target chemical from the listing of target chemicals that match the user query.


7. (Currently amended)      A ~~computerized~~ method <u>according to Claim 2 wherein the accepting a user identification of a target chemical comprises</u> ~~of determining parameters for chemical synthesis comprising~~:

    accepting a user identification of a reaction type;

    displaying a listing of target chemicals that are synthesized using the reaction type; <u>and</u>

    accepting a user selection of a target chemical from the listing of target chemicals that are synthesized using the reaction type~~; and~~

    ~~displaying a listing of reagent chemicals that are used to synthesize the target chemical and/or a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical.~~


8. (Previously presented)     A method according to Claim 2 wherein the following is performed between the accepting a user identification of a target chemical and the displaying a listing of reagent chemicals:

    displaying a listing of procedures that can be used to synthesize the target chemical; and

    accepting a user selection of a procedure from the listing of procedures that can be used to synthesize the target chemical.


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9. (Currently amended)     A ~~computerized~~ method ~~of determining parameters for chemical synthesis~~ according to Claim 2 further comprising:

~~accepting a user identification of a target chemical;~~

accepting a user selection of a desired quantity of the target chemical;

scaling ~~a~~ <u>the</u> listing of reagent chemicals that are used to synthesize the desired quantity of the target chemical; and

displaying a scaled listing of the reagent chemicals that are used to synthesize the desired quantity of the target chemical, and a listing of a procedure that is used to synthesize the desired quantity of the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical and the user selection of the desired quantity of the target chemical.

10. (Currently amended)     A ~~computerized~~ method <u>according to Claim 2 wherein the accepting a user identification of a target chemical comprises</u> ~~of determining parameters for chemical synthesis comprising~~:

displaying a prioritized listing of target chemicals that match a user query; <u>and</u>

accepting a user selection of a target chemical from the prioritized listing of target chemicals that match the user query~~; and~~

~~displaying a listing of reagent chemicals that are used to synthesize the target chemical and/or a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical.~~

11. (Previously presented)     A method according to Claim 2 wherein the following are performed between accepting a user identification of a target chemical and displaying a listing of reagent chemicals:

accepting user identification of a chemical;

displaying a listing of procedures that use the chemical as a reagent chemical; and

accepting a user selection of a procedure from the listing of procedures that use the chemical as a reagent chemical; and

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wherein displaying a listing of reagent chemicals comprises displaying a listing of reagent chemicals that are used to synthesize the chemical according to the procedure that was selected.

12-17. (Cancelled).

18. (Previously presented)   A computerized method of obtaining materials for chemical synthesis comprising:

generating an electronic order for a target chemical and/or reagent chemicals that are used to synthesize the target chemical from an electronically displayed listing of the reagent chemicals that are used to synthesize the target chemical and of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to user input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

19. (Previously presented)   A method according to Claim 18 wherein the generating an electronic order comprises:

generating an electronic order for a kit of the reagent chemicals that are used to synthesize the target chemical.

20. (Previously presented)   A method according to Claim 18 wherein the generating an electronic order comprises:

generating an electronic order for a kit of equipment that is used to synthesize the target chemical.

21-24. (Cancelled).

25. (Currently amended)    A system for determining parameters for chemical synthesis comprising:

means for accepting a user identification of a target chemical;

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means for displaying a listing of reagent chemicals that are used to synthesize the target chemical, in response to the user identification of the target chemical;

means for accepting user selection from the listing of reagent chemicals, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical; and

means for generating an electronic order for the target chemical and/or the reagent chemicals that are used to synthesize the target chemical in response to the user selection ~~input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical~~.

26. (Previously presented)    A system according to Claim 25 further comprising:
    a database; and

    means for entering into the database, a plurality of target chemicals, a plurality of corresponding listings of reagent chemicals that are used to synthesize the plurality of target chemicals, and a plurality of corresponding listings of procedures that are used to synthesize the plurality of target chemicals by reacting the corresponding reagent chemicals according to the corresponding procedure.

27. (Cancelled).

28. (Previously presented)    A system according to Claim 25 wherein the means for accepting a user identification of a target chemical comprises means for accepting a user identification of a target chemical by chemical formula, chemical structure, chemical compound name and/or CAS number.

29. (Previously presented)    A system according to Claim 25 wherein the means for accepting a user identification of a target chemical comprises:
    means for displaying a listing of target chemicals that match a user query; and
    means for accepting a user selection of a target chemical from the listing of target chemicals that match the user query.

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30. (Currently amended)    A system according to Claim 25 wherein the means for accepting a user identification of a target chemical comprises ~~for determining parameters for chemical synthesis comprising~~:

means for accepting a user identification of a reaction type;

means for displaying a listing of target chemicals that are synthesized using the reaction type; and

means for accepting a user selection of a target chemical from the listing of target chemicals that are synthesized using the reaction type~~; and~~

~~means for displaying a listing of reagent chemicals that are used to synthesize the target chemical and/or a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical.~~

31. (Previously presented)    A system according to Claim 25 further comprising:

means for displaying a listing of procedures that can be used to synthesize the target chemical; and

means for accepting a user selection of a procedure from the listing of procedures that can be used to synthesize the target chemical, wherein the means for displaying a listing of reagent chemicals is responsive to the means for accepting a user selection of a procedure.

32. (Currently amended)    A system ~~for determining parameters for chemical synthesis~~ according to Claim 25 further comprising:

~~means for accepting a user identification of a target chemical;~~

means for accepting a user selection of a desired quantity of the target chemical; and

means for scaling ~~a~~ the listing of reagent chemicals that are used to synthesize the desired quantity of the target chemical; and

wherein the means for displaying comprises means for displaying a scaled listing of the reagent chemicals that are used to synthesize the desired quantity of the target chemical and a listing of a procedure that is used to synthesize the desired quantity of the

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target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical and the user selection of the desired quantity of the target chemical.

33. (Currently amended)   A system according to Claim 2 wherein the accepting a user identification of a target chemical comprises for determining parameters for chemical synthesis comprising:

means for displaying a prioritized listing of target chemicals that match a user query; and

means for accepting a user selection of a target chemical from the prioritized listing of target chemicals that match the user query; and

means for displaying a listing of reagent chemicals that are used to synthesize the target chemical and/or a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical.

34. (Previously presented)   A system according to Claim 25 further comprising:

means for accepting user identification of a chemical;

means for displaying a listing of procedures that use the chemical as a reagent chemical; and

means for accepting a user selection of a procedure from the listing of procedures that use the chemical as a reagent chemical; and

wherein the means for displaying a listing of reagent chemicals comprises means for displaying a listing of reagent chemicals that are used to synthesize the chemical according to the procedure that was selected.

35-40. (Cancelled).

41. (Previously presented)   A system for obtaining materials for chemical synthesis comprising:

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an electronically displayed listing of reagent chemicals that are used to synthesize a target chemical and of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure; and

means for generating an electronic order for the target chemical and/or the reagent chemicals that are used to synthesize the target chemical from the electronically displayed listing of the reagent chemicals that are used to synthesize the target chemical and of the procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to user input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

42. (Previously presented)   A system according to Claim 41 wherein the means for generating an electronic order comprises:

.means for generating an electronic order for a kit of the reagent chemicals that are used to synthesize the target chemical.

43. (Previously presented)   A system according to Claim 41 wherein the means for generating an electronic order comprises:

means for generating an electronic order for a kit of equipment that is used to synthesize the target chemical.

44. (Cancelled).

45. (Currently amended)    A computer program product that determines parameters for chemical synthesis, the computer program product comprising a computer usable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that is configured to accept a user identification of a target chemical;

computer-readable program code that is configured to display a listing of reagent chemicals that are used to synthesize the target chemical, in response to the user identification of the target chemical;

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computer-readable program code that is configured to accept user selection from the listing of reagent chemicals, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical; and

computer-readable program code that is configured to generate an electronic order for the target chemical and/or the reagent chemicals that are used to synthesize the target chemical in response to the user selection ~~input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical~~.

46. (Previously presented) A computer program product according to Claim 45 further comprising:

computer-readable program code that is configured to enter into a database, a plurality of target chemicals, a plurality of corresponding listings of reagent chemicals that are used to synthesize the plurality of target chemicals, and a plurality of corresponding listings of procedures that are used to synthesize the plurality of target chemicals by reacting the corresponding reagent chemicals according to the corresponding procedure.

47. (Cancelled).

48. (Previously presented) A computer program product according to Claim 45 wherein the computer-readable program code that is configured to accept a user identification of a target chemical comprises computer-readable program code that is configured to accept a user identification of a target chemical by chemical formula, chemical structure, chemical compound name and/or CAS number.

49. (Previously presented) A computer program product according to Claim 45 wherein the computer-readable program code that is configured to accept a user identification of a target chemical comprises:

computer-readable program code that is configured to display a listing of target chemicals that match a user query; and

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computer-readable program code that is configured to accept a user selection of a target chemical from the listing of target chemicals that match the user query.

50. (Currently amended)     A computer program product <u>according to Claim 45</u> <u>wherein the computer-readable program code that is configured to accept a user</u> <u>identification of a target chemical comprises</u> ~~that determines parameters for chemical~~ ~~synthesis, the computer program product comprising a computer usable storage medium~~ ~~having computer readable program code embodied in the medium, the computer readable~~ ~~program code comprising~~:

computer-readable program code that is configured to accept a user identification of a reaction type;

computer-readable program code that is configured to display a listing of target chemicals that are synthesized using the reaction type; <u>and</u>

computer-readable program code that is configured to accept a user selection of a target chemical from the listing of target chemicals that are synthesized using the reaction type; ~~and~~

~~computer readable program code that is configured to display a listing of reagent~~ ~~chemicals that are used to synthesize the target chemical and/or a listing of a procedure~~ ~~that is used to synthesize the target chemical by reacting the reagent chemicals according~~ ~~to the procedure, in response to the user identification of the target chemical~~.

51. (Previously presented)     A computer program product according to Claim 45 further comprising:

computer-readable program code that is configured to display a listing of procedures that can be used to synthesize the target chemical that was identified; and

computer-readable program code that is configured to accept a user selection of a procedure from the listing of procedures that can be used to synthesize the target chemical, wherein the computer-readable program code that is configured to display a listing of reagent chemicals is responsive to the computer-readable program code that is configured to accept a user selection of a procedure.

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52. (Currently amended) A computer program product ~~that determines parameters for chemical synthesis, the computer program product comprising a computer usable storage medium having computer-readable program code embodied in the medium, the computer-readable program code~~ according to Claim 45 further comprising:

~~computer-readable program code that is configured to accept a user-identification of a target chemical;~~

computer-readable program code that is configured to accept a user selection of a desired quantity of the target chemical;

computer-readable program code that is configured to scale ~~a~~ the listing of reagent chemicals that are used to synthesize the desired quantity of the target chemical; and

computer-readable program code that is configured to display a scaled listing of the reagent chemicals that are used to synthesize the desired quantity of the target chemical, and a listing of a procedure that is used to synthesize the desired quantity of the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical and the user selection of the desired quantity of the target chemical.

53. (Currently amended) A computer program product according to Claim 45 wherein the computer-readable program code that is configured to accept a user identification of a target chemical comprises ~~that determines parameters for chemical synthesis, the computer program product comprising a computer usable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:~~

computer-readable program code that is configured to display a prioritized listing of target chemicals that match a user query; and

computer-readable program code that is configured to accept a user selection of a target chemical from the prioritized listing of target chemicals that match the user query; ~~and~~

~~computer-readable program code that is configured to display a listing of reagent chemicals that are used to synthesize the target chemical and/or a listing of a procedure~~

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~~that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical.~~

54. (Previously presented)   A computer program product according to Claim 45 further comprising:

computer-readable program code that is configured to accept user identification of a chemical;

computer-readable program code that is configured to display a listing of procedures that use the chemical as a reagent chemical; and

computer-readable program code that is configured to accept a user selection of a procedure from the listing of procedures that use the chemical as a reagent chemical; and

wherein the computer-readable program code that is configured to display a listing of reagent chemicals comprises computer-readable program code that is configured to display a listing of reagent chemicals that are used to synthesize the chemical according to the procedure that was selected.

55-60. (Cancelled).

61. (Previously presented)   A computer program product that obtains materials for chemical synthesis, the computer program product comprising a computer usable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that is configured to generate an electronic order for a target chemical and/or reagent chemicals that are used to synthesize the target chemical from an electronically displayed listing of the reagent chemicals that are used to synthesize the target chemical and of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to user input to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

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62. (Previously presented) A computer program product according to Claim 61 wherein the computer-readable program code that is configured to generate an electronic order comprises:

computer-readable program code that is configured to generate an electronic order for a kit of the reagent chemicals that are used to synthesize the target chemical.

63. (Previously presented) A computer program product according to Claim 61 wherein the computer-readable program code that is configured to generate an electronic order comprises:

computer-readable program code that is configured to generate an electronic order for a kit of equipment that is used to synthesize the target chemical.

64. (Previously presented) A method according to Claim 2 further comprising:

displaying a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical; and

accepting user selection from the listing of a procedure, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

65. (Previously presented) A system according to Claim 25 further comprising:

means for displaying a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals according to the procedure, in response to the user identification of the target chemical; and

means for accepting user selection from the listing of a procedure, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

66. (Previously presented) A computer program product according to Claim 45 further comprising:

computer-readable program code that is configured to display a listing of a procedure that is used to synthesize the target chemical by reacting the reagent chemicals

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according to the procedure, in response to the user identification of the target chemical; and

      computer-readable program code that is configured to accept user selection from the listing of a procedure, to order the target chemical and/or the reagent chemicals that are used to synthesize the target chemical.

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